

LISTING OF THE CLAIMS

1. (Previously Presented) A code conversion method of receiving a first code string to convert the first code string into a second code string, and to output the same, the method comprising:

generating a decoded signal from the first code string in accordance with a decoding method; and

judging whether the decoded signal is an audio signal or a non-audio signal by using information contained in the undecoded first code string, and encoding the decoded signal in accordance with an encoding method on the basis of the judgment to generate a second code string,

wherein the generating step includes an audio decoding step and a non-audio decoding step;

the audio decoding step comprises receiving a first code corresponding to an audio parameter contained in the first code string when the information corresponds to an audio section, and decoding an audio signal from the first code by the decoding method, and outputting the decoded audio signal as the decoded signal; and

the non-audio decoding step comprises receiving a second code corresponding to a non-audio parameter contained in the first code when the information corresponds to a non-audio section, decoding a non-audio signal from the first code by the decoding method, and outputting the decoded non-audio signal as the decoded signal.

2. (Previously Presented) The code conversion method according to claim 1, wherein:

the judging step includes judging whether the decoded signal is the audio signal or the non-audio signal by using one of frame type information contained in the undecoded first code string and a size of the undecoded first code string.

3. (Previously Presented) The code conversion method according to claim 1, wherein:

the generating step includes a step of separating a header containing the information and a payload from the undecoded first code string, and outputting the first code when the information corresponds to an audio section, and outputting the second code when the information corresponds to a non-audio section; and

the judging step includes executing control based on the information to output the decoded audio signal when the information corresponds to the audio section and to output the decoded non-audio when the frame type information corresponds to the non-audio section.

4. (Previously Presented) The code conversion method according to claim 3, the judging step further including: encoding the decoded audio signal in accordance with the encoding method to output the same as a second code string when the information corresponds to the audio section, encoding the decoded non-audio by the encoding method to output the same as a second code when the information corresponds to the non-audio section, setting the second code obtained by encoding the decoded audio signal in accordance with the encoding method as a payload on the basis of the information when

the information corresponds to the audio section, and outputting the second code string obtained by adding a header to the payload from an output terminal and a step of setting the second code obtained by encoding the decoded non-audio signal by the encoding method as a payload when the information corresponds to the non-audio section, and outputting the second code string obtained by adding a header to the payload from the output terminal.

5. (Previously Presented) A code conversion device for receiving a first code string compliant with a first encoding method to convert the first code string into a second code string compliant with a second encoding method, and to output the same, comprising:

an audio decoding device for generating a decoded signal from the first code string in accordance with a decoding method; and

an audio encoding device for judging whether the decoded signal is an audio signal or a non-audio signal using information contained in the undecoded first code string, and encoding the decoded signal in accordance with the encoding method on the basis of the judgment to generate the second code string,

wherein the audio decoding device includes an audio decoding circuit and a non-audio decoding circuit;

the audio decoding circuit receives a first code corresponding to an audio parameter contained in the first code string when the information corresponds to an audio section, and decodes an audio signal from the first code by the decoding method, and outputs the decoded audio signal as the decoded signal; and

the non-audio decoding circuit receives a second code corresponding to a non-audio parameter contained in the first code when the information corresponds to a non-audio section, decodes a non-audio signal from the first code by the decoding method, and outputs the decoded non-audio signal as the decoded signal.

6. (Previously Presented) The code conversion device according to claim 5, wherein whether the decoded signal is the audio signal or the non-audio signal is judged by using one of the information contained in the undecoded first code string and a size of the undecoded first code string.

7. (Previously Presented) The code conversion device according to claim 5, wherein:

the audio decoding device includes a header information extraction circuit and a first switch;

the header information extraction circuit separates a header containing the information and a payload from the undecoded first code string, outputs the first code to the audio decoding circuit when the information corresponds to an audio section, and outputs the second code to the non-audio decoding circuit when the information corresponds to a non-audio section; and

the first switch receives the information output from the header information extraction circuit, outputs the decoded audio signal output from the audio decoding circuit when the information corresponds to the audio section, and outputs the decoded non-audio signal output from the non-audio decoding circuit when the information corresponds to the non-audio section.

8. (Previously Presented) The code conversion device according to claim 7, wherein:

the audio encoding device includes a second switch, an audio encoding circuit, a non-audio encoding circuit, and a header information addition switch;

the second switch receives the information output from the header information extraction circuit of the decoding device, outputs the decoded signal output from the first switch to the audio encoding circuit when the information corresponds to the audio section, and outputs the decoded non-audio signal output from the first switch to the non-audio encoding circuit when the information corresponds to the non-audio section;

the audio encoding circuit receives the decoded signal output from the second switch, encodes the decoded signal by the encoding method, and outputs the decoded signal as the second code string to the header information addition circuit;

the non-audio encoding circuit receives the decoded non-audio signal output from the second switch, encodes the decoded non-audio signal by the encoding method, and outputs the decoded non-audio signal as the second code string to the header information addition circuit; and

the header information addition circuit receives the information output from the header information extraction circuit of the audio decoding device, sets a second code output from the audio encoding circuit as a payload when the information corresponds to the audio section, and outputs the second code string obtained by adding a header to the payload via an output terminal, sets the second code output from the non-audio encoding circuit as a payload when the information corresponds to the non-audio section, and

outputs the second code string obtained by adding a header to the payload via the output terminal.

9. (Previously Presented) A computer readable medium storing a code conversion program for use in operating a program controlled processor device that constitutes a code conversion device responsive to a first code string so as to convert the first code string into a second code string, the program making the program-controlled processor device execute the steps of:

(a) generating a first decoded audio signal from the first code string by a decoding method; and

(b) judging whether the decoded signal is an audio signal or a non-audio signal by using information contained in the undecoded first code string, and encoding the decoded signal by an encoding method based on the judgment to generate a second code string,

wherein the generating step includes an audio decoding step and a non-audio decoding step;

the audio decoding step comprises receiving a first code corresponding to an audio parameter contained in the first code string when the information corresponds to an audio section, and decoding an audio signal from the first code by the decoding method, and outputting the decoded audio signal as the decoded signal; and

the non-audio decoding step comprises receiving a second code corresponding to a non-audio parameter contained in the first code when the information corresponds to a non-audio section, decoding a non-audio signal from the first code by the decoding method, and outputting the decoded non-audio signal as the decoded signal.

10. (Previously Presented) The computer readable medium according to claim 9, the program making the processor device execute a step of judging whether the decoded signal is the audio signal or the non-audio signal by using one of the information contained in the undecoded first code string and a size of the undecoded first code string

11. (Cancelled).

12. (Previously Presented) A code conversion method for converting a first code string containing a header and a payload into a second code string, said method comprising: judging whether the first code string is an audio signal or a non-audio signal based on at least one of the header and the payload of the undecoded first code string, decoding the first code string based on the judgment, and then encoding the code string according to an encoding method into the second code string.

13. (Previously Presented) The code conversion method according to claim 12, wherein the first code string and the second code string are encoded by encoding methods different from each other.

14. (Previously Presented) The code conversion method according to claim 12, wherein the first code string and the second code string are encoded by the same encoding method.

15. (cancelled)

16. (Previously Presented) The code conversion method of claim 1, wherein the non-audio signal corresponds to a no-sound section or a noise section.

17. (Previously Presented) The code conversion device of claim 5, wherein the non-audio signal corresponds to a no-sound section or a noise section.

18. (Previously Presented) The computer readable medium of claim 9, wherein the non-audio signal corresponds to a no-sound section or a noise section.

19. (Previously Presented) The code conversion method of claim 12, wherein the non-audio signal corresponds to a no-sound section or a noise section.

20. (Previously Presented) A code conversion method of receiving a first code string to convert the first code string into a second code string, and to output the same, the method comprising:

generating a decoded signal from the first code string in accordance with a decoding method; and

judging whether the decoded signal corresponds to an audio signal or a non-audio signal based on a size of the undecoded first code string, and encoding the decoded signal on the basis of the judgment to generate a second code string,

wherein the generating step includes an audio decoding step and a non-audio decoding step;

the audio decoding step comprises receiving a first code corresponding to an audio parameter contained in the first code string when the information corresponds to an

audio section, and decoding an audio signal from the first code by the decoding method, and outputting the decoded audio signal as the decoded signal; and

the non-audio decoding step comprises receiving a second code corresponding to a non-audio parameter contained in the first code when the information corresponds to a non-audio section, decoding a non-audio signal from the first code by the decoding method, and outputting the decoded non-audio signal as the decoded signal.

21. (Previously Presented) A code conversion device for receiving a first code string to convert the first code string into a second code string, and to output the same, comprising:

a decoding circuit for generating a decoded signal from the first code string in accordance with a decoding method; and

an encoding circuit for judging whether the decoded signal corresponds to an audio signal or a non-audio signal based on a size of the undecoded first code string, and encoding the decoded signal on the basis of the judgment to generate a second code string,

wherein the decoding circuit includes an audio decoding circuit and a non-audio decoding circuit;

the audio decoding circuit receives a first code corresponding to an audio parameter contained in the first code string when the information corresponds to an audio section, and decodes an audio signal from the first code by the decoding method, and outputs the decoded audio signal as the decoded signal; and

the non-audio decoding circuit receives a second code corresponding to a non-audio parameter contained in the first code when the information corresponds to a non-audio section, decodes a non-audio signal from the first code by the decoding method, and outputs the decoded non-audio signal as the decoded signal.

22. (Previously Presented) A computer readable medium storing a code conversion program making a program-controlled processor device execute the steps of a code conversion method of receiving a first code string to convert the first code string into a second code string, and to output the same, the method comprising the steps of:

generating a decoded signal from the first code string in accordance with a decoding method; and

judging whether the decoded signal corresponds to an audio signal or a non-audio signal based on a size of the undecoded first code string, and encoding the decoded signal on the basis of the judgment to generate a second code string,

wherein the generating step includes an audio decoding step and a non-audio decoding step;

the audio decoding step comprises receiving a first code corresponding to an audio parameter contained in the first code string when the information corresponds to an audio section, and decoding an audio signal from the first code by the decoding method, and outputting the decoded audio signal as the decoded signal; and

the non-audio decoding step comprises receiving a second code corresponding to a non-audio parameter contained in the first code when the information corresponds to a non-audio section, decoding a non-audio signal from the first code by the decoding method, and outputting the decoded non-audio signal as the decoded signal.